

OIE Code – Guidelines for the Inactivation of the Avian Influenza Virus Appendix 3.6.5

General comment: Articles 3.6.5.1 (Eggs and egg products) and Article 3.6.5.2 (Meat) provide charts of minimum time and temperature requirements for the inactivation of the HPAI virus in eggs, egg products, and meat. Lethality standards (curves) for a given required minimum log reduction in pathogens in the treated product can be and have been developed. This methodology is viable and in line with principle hazard analysis and critical control points. Such lethality standards would allow for additional times and temperatures in addition to the limited prescribed times and temperatures recommended.

The United States continues to support the use of the OIE's Ad hoc group expert research in providing time-temperature guidance and respectfully requests that the recommendation we made on this issue a year ago be further considered -- specifically that a range of time/temperatures for a given product be shown to allow flexibility in the treatment processes.

For the case of dried egg-white, the most commonly traded egg product:

Dr. David Swayne's work established both "D" and "Z" values for AI inactivation in eggs. Having determined these values allows other time/temp combinations to be assessed for equivalence. The data presented in Swayne and Beck (2004) is useful in determining a range of effective pasteurization processes for dried egg whites that would be expected to provide 7 log₁₀ EID₅₀/gm AI inactivation. Providing a standard expressed as a range of conditions at or above the minimums would provide flexibility for processors and clarity when communicating with various veterinary authorities involved in reviewing veterinary and sanitary certificates used in international trade.

Dried egg white

| Temperature ° C | Time (in days) |
|------------------------|-----------------------|
| 55 | 30.8 |
| 57 | 18.5 |
| 59 | 11.0 |
| 61 | 6.6 |
| 63 | 4.0 |
| 65 | 2.4 |
| 67 | 1.4 |
| 69 | 0.8 |

Alternatively, the following text under these Guidelines would be appropriate:

The listed temperatures are indicative of a range that achieves a 7-log kill. Where scientifically documented, variances from these times and temperatures may also be suitable when they achieve the inactivation of the virus.